# **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 70.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-003845 Address: 333 Burma Road **Date Inspected:** 04-Sep-2008

City: Oakland, CA 94607

**OSM Arrival Time:** 900 **Project Name:** SAS Superstructure **OSM Departure Time:** 1700 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Japan Steel Works **Location:** Muroran, Japan

**CWI Name:** Kuan Chung **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Tower, Jacking and Deviation Saddle

### **Summary of Items Observed:**

The following report is based on METS observations at Japan Steel Works (JSW) in Muroran Japan. Current work: Casting, machining and repair of Saddles.

#### Fabrication Shop # 4

### NDT Inspection

On this date the QA representative Dong J. Shin arrived at Japan Steel Works (JSW) of Muroran Japan and traveled to JSW fabrication shop # 4 and observed NISC NDT Technician Mr. K. Kobayashi and Mr. R. Kumagai perform Magnetic Particle testing on weld run out tab removal areas. Magnetic particle testing was with yoke, AC current with red particles. JSW QC inspector Mr. Kuan Fu Chung observed NISC perform testing in progress and kept record for test results.

# Foundry Shop

On this date the QA representative Dong J. Shin arrived at Japan Steel Works (JSW) of Muroran Japan and traveled to JSW foundry shop and observed JSW welding personnel Mr. H. Nishikawa perform welding on casting T1-1. The welding of 30%-60% of the rib plate to side plate, joint designation T1-1 7Y-7V(1-2) and &7Y-7V(1-3), The welding was performed utilizing the Shielded Metal Arc Welding (SMAW) process per the welding procedure specification (WPS) SJ-3011-2. The welding was performed in the 1G (Flat) and 2G(Horizontal) positions. The filler metal utilized was identified as 4.8mm diameter, Class E7016, Brand name LB-52A. The welding parameters and heat control were monitored at periodic intervals. The SMAW welding average amperage and voltage by clamp type meter and travel speed were verified to be within the welding procedure specification parameter range of 140 amps to 200 amps for 1G position and 200 amps to 250 amps for

# WELDING INSPECTION REPORT

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2G position, 21 volts to 24 volts and travel speed of 70 to 82 mm per minute for the 4.8mm electrode used. All welding parameters were verified by the QA inspector. The work was not completed on this date and appears to meet the minimum requirements of the welding procedure specification and contract documents.

# **Summary of Conversations:**

No specific conversations.

# **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Venkatesh Iyer, (858) 967-6363, who represents the Office of Structural Materials for your project.

Inspected By:	Shin,DJ	Quality Assurance Inspector
Reviewed By:	Lanz,Joe	QA Reviewer